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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/738,900	12/18/2000	Heung-bae Lee	Q61824	2194

7590 07/30/2003

SUGHRUE, MION, ZINN, MACPEAK & SEAS, PLLC
2100 Pennsylvania Avenue, N.W.
WASHINGTON, DC 20037-3202

EXAMINER

GHEBRETINSAE, TEMESGHEN

ART UNIT	PAPER NUMBER
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2631

DATE MAILED: 07/30/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/738,900

Applicant(s)
Lee

Examiner
Temesghen Ghebretinsae

Art Unit
2631



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE three MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3 is/are rejected.
- 7) ☒ Claim(s) 2 is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 6 6) ☐ Other:

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DETAILED ACTION

1. It would be of great assistance to the Office if all incoming papers pertaining to a filed application carried the following items:

1. Application number (checked for accuracy, including series code and serial no.).
2. Group art unit number (copied from most recent Office communication).
3. Filing date.
4. Name of the examiner who prepared the most recent Office action.
5. Title of invention.
6. Confirmation number (See MPEP § 503).

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

3. The references listed in the IDS PTO-1449 filed 12/16/02 have been considered by the examiner.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over The admitted prior art fig.1 in view of Kawai (6,072,997).

Prior art fig.1 discloses a direct conversion demodulator in RF reception system comprising: a down mixer for mixing received RF signal; a filter for filtering high frequency components of the baseband signals; a differentiator for differentiating the baseband signals; a multiplier for cross multiplying the baseband signal; and an adder for adding the baseband signals. The prior art differs from the claimed subject matter in that it does not disclose an automatic gain control (AGC). However, Kawai discloses a direct conversion receiver comprising a down mixer for mixing received RF signal; a filter for filtering high frequency components of the baseband signals; a differentiator for differentiating the baseband signals; an adder for adding the baseband signal and automatic gain control (AGC) for controlling gains of the baseband signals. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the AGC of Kawai in the system of (Prior art fig.1) so that the output signal is maintained at a constant level and the data is detected correctly.

6. Claims 1 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Admitted Prior art fig.1 in view of Kawai (6,038,268).

Prior art fig.1 discloses a direct conversion demodulator in RF reception system comprising: a down mixer for mixing received RF signal; a filter for filtering high frequency components of the baseband signals; a differentiator for differentiating the baseband signals; a

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multiplier for cross multiplying the baseband signal; and an adder for adding the baseband signals. The prior art differs from the claimed subject matter in that it does not disclose an automatic gain control (AGC). However, Kawai discloses a direct conversion receiver comprising: a down mixer for mixing received RF signal; a filter for filtering high frequency components of the baseband signals; a differentiator for differentiating the baseband signals; a multiplier for cross multiplying the baseband signal; an adder for adding the baseband signals and AGC for controlling gain of the baseband signals. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the AGC of Kawai in the system of (Prior art fig.1) so that the output signal is maintained at a constant level and the data is detected correctly.

Allowable Subject Matter

7. Claim 2 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Sessink is cited to show receiver with automatic gain control circuit..
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to T.Ghebretinsae whose telephone number is 703-405-4777. The examiner can normally be reached on Monday-Friday from 8 to 5.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham, can be reached on (703) 305-4378. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-9000.

T.Ghebretinsae

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7/25/03.

TEMESGHEN GHEBRETINSÆ
PRIMARY EXAMINER

